QUATERNARY INTERNATIONAL

The Journal of the International Union for Quaternary Research

Volume 19 **1993**

CONTENTS

Preface 3

Species and Speciation. Evolution and the Fossil Record 5
A. Turner

The Species Concept and Quaternary Mammals 9
A. Nadachowski

Mode, Tempo and Pattern of Evolution in Subterranean Mole Rats of the *Spalax ehrenbergi* Superspecies in the Quaternary of Israel 13
E. Nevo

Chromosomal Divergence in House Mice in the Light of Palaeontology: A Colonization-related Event? 21
J.-C. Auffray

Morphological Trends and Rates of Evolution in Arvicolids (Arvicolidae, Rodentia): Towards a Punctuated Equilibria/Disequilibria Model 27
J. Chaline, B. Laurin, P. Brunet-Lecomte and L. Viriot

Evolution of *Borsodia* (Arvicolidae, Mammalia) in the Villanyian and in the Early Biharian 41
A. S. Tesakov

On the Origin of the Middle Pleistocene Larger Voles 47
T. van Kolfschoten

Heterochronic Evolution in the Late Pliocene–Early Pleistocene Arvicolids of the Mediterranean Area 51
J. Agustí, C. Castillo and A. Galobart

Heterochronies in Morphology and Schmelzmuster of Hypsodont Molars in the Muroidea (Rodentia) 57
W. v. Koenigswald

Evolutionary Patterns in the First Lower Molar of the Endemic Murid *Microtia* 63
L. Abbazzi, F. Masini and D. Torre

Size Decrease in Late Pleistocene–Holocene Caballoid Horses (Genus *Equus*), Intra- or Interspecific Evolution? A Discussion of Alternatives 71
A. Forsten

'Gradualistic' Evolution: its Interpretation in Quaternary Large Mammal Species 77
A. M. Lister

Continuity and Discontinuity During Hominization 85
A. Dambricourt-Malassé

The Failure of Evolution: Late Quaternary Mammalian Extinctions in the Holarctic 101
A. J. Stuart

Phylogenies, Fossils and Evolutionary Studies 109
L. Werdelin

This Journal is abstracted in: *Geo Abstr*

1040-6182(1993)19;1-0